

Our ref: KON-1858

Client's ref: P6363-001-0000



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

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In re Application of: R. TAKAHASHI et al: Art Unit: 1752

Serial No. : 10/797,870 :
Filed : March 10, 2004 : Examiner: B. L. Gilliam
Title : LITHOGRAPHIC PRINTING PLATE:
MATERIAL AND PRINTING
METHOD :

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DECLARATION

Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

S i r:

I, Rieko Takahashi, hereby declare and say as follows:

1. I am one of the Inventors of the present invention.
2. I received a Master's degree in chemistry from the Tokyo Institute of Technology in 1998. Since that time, I have

been employed by Konica Corporation (now Konica Minolta Medical & Graphic, Inc.), the Assignee of the above application. During my employment at Konica, I have engaged in the research and development in the filed of lithographic printing plate materials.

3. I am aware that the Examiner has rejected the above application based on Inoue (EP 1145848). Tests have been performed and are reported herein to demonstrate the significance of simultaneously satisfying the transmission density range and the glossiness range of the present invention. These tests have been performed either by myself or under my direct supervision and control.
4. Printing plate material samples 001-011 in Table 6 at page 49 of the application were prepared and evaluated in accordance with the preparation and evaluation methods described beginning at page 40 of the application. The composition of samples 001-011 and the evaluation results for samples 001-011 are illustrated in the attached Tables 6A and 7A.
5. Printing plate material sample 012 was prepared and evaluated similarly to sample 009, except that the content

of the light-to-heat conversion material used in the under-layer was changed from 25% to 30%. The composition of sample 012 and the evaluation results for sample 012 are illustrated in the attached Tables 6A and 7A.

6. As shown in Tables 6A and 7A, the materials of Inventive samples 003 and 005-010 simultaneously satisfying the claimed transmission density range and the claimed glossiness range exhibited superior visibility compared to the materials of Comparative samples 001, 002, 004, 011 and 012. For instance, Inventive samples 003 and 005-010 received at worst a B rating for image visibility (superior image with 2-90% of the dots recognized), while Comparative samples 001, 002, 004, 011 and 012 received at best a C rating for image visibility (slightly inferior image with dots not clearly recognized).
7. Table 6A also demonstrates that a different substrate leads to a different transmission density (comparison between Comparative sample 002 and Inventive Sample 003). In addition, Table 6A demonstrates that a different image forming layer leads to a different glossiness (comparison between Inventive sample 010 and Comparative Sample 011). Thus, Table 6A demonstrates that the transmission density

is affected by the specific type of substrate and the glossiness is affected by the specific type of image forming layer.

8. Tables 6A and 7A also demonstrate the criticality of the upper limit of the claimed transmission density range. For example, Comparative sample 012 having a transmission density above the claimed range (1.30) received D ratings for image visibility (inferior image and dots were difficult to recognize), while Inventive sample 010 having a transmission density within the claimed range (0.94) received A ratings for image visibility (excellent image with clearly observable lines and spaces).
9. I believe that those skilled in the art would find it surprising and unexpected that the simultaneous satisfaction of the claimed transmission density and the claimed glossiness leads to superior image visibility.

It is declared by undersigned that all statements made herein of undersigned's own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements are made with the knowledge that willful false statements and the like so made are punishable by

fine or imprisonment, or both, under section 1001 of Title 18 of the U.S. Code; and that such willful false statements may jeopardize the validity of this Application or any patent issuing thereon.

Rieko Takahashi
Rieko Takahashi

Dated: This 2nd day of September, 2005.

Encl: Table 6A
Table 7A



Table 6A

Sample No.	Substrate	Under-layer	Hydrophilic Layer	Transmission Density	Image Forming Layer	Gloss-iness	Re-mark
001	1	1* ¹	1* ²	0.33	1	15.0	Comp.
002	1	1	1	0.33	4	20.0	Comp.
003	2	1	1	0.55	3	3.2	Inv.
004	1	2* ³	1	0.84	1	13.0	Comp.
005	2	2	1	0.91	2	8.4	Inv.
006	1	2	1	0.84	3	1.2	Inv.
007	1	2	1	0.84	5	5.6	Inv.
008	1	2	1	0.84	8	4.0	Inv.
009	1	3* ⁴	1	0.94	3	0.8	Inv.
010	1	3	1	0.94	6	6.1	Inv.
011	1	3	1	0.94	7	11.2	Comp.
012	1	5* ⁵	1	1.30	3	0.6	Comp.

*1: light-to-heat conversion material: 5%

*2: light-to-heat conversion material: 9%

*3: light-to-heat conversion material: 20%

*4: light-to-heat conversion material: 25%

*5: light-to-heat conversion material: 30%

Table 7A

No.	Sensitivity (mJ/cm ²)	Image Visibility		ΔE
		Visual	Magnifier	
001	300	C	C	0.77
002	200	D	D	0.12
003	250	B	B	7.23
004	200	D	D	5.91
005	200	B	B	9.03
006	200	A	A	13.09
007	250	B	B	7.57
008	100	B	B	7.84
009	150	A	A	18.91
010	100	A	A	13.25
011	150	C	D	4.21
012	330	D	D	6.00